CLAIMS

1. A method of determining the correctness of the calibration of an automatic test arrangement testing a device, the automatic test arrangement including a tester driver, a pin electronics card having an input connected to the tester driver and an output connected to a first output pin, and a tester interface unit having an input connected to the first output pin and an output connected to a second output pin, said method comprising with the second output pin connected to the device under test, determining a first electrical length from the tester driver to a grounding point of the device under test; with no connection to the second output pin, determining a second electrical length from the tester driver to the tester interface unit output; with the second output pin connected to ground by a shorting block, determining a third electrical length from the tester driver to the ground; determining as a first difference value the difference between the first electrical length and the second electrical length; determining as a second difference value the difference between the first electrical length and the third electrical length; determining as a third difference value the difference between the first difference value and the second difference value; and evaluating the third difference value to determine the correctness of the calibration of the automatic test arrangement.

2. A method as claimed in claim 1, wherein the first electrical length is determined by determining the electrical length from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, and the second output pin to a grounding point of the device under test.

3. A method as claimed in claim 2, wherein the first electrical length is determined by applying an input signal from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, and the second output pin to the device under test; receiving a signal as a result of reflection of the input signal from the device under test; and determining the elapsed time between application of the input signal and receipt of the reflected signal.

4. A method as claimed in claim 1, wherein the second electrical length is determined by determining the electrical length from the tester driver, through the pin electronics card and the first output pin to the tester interface unit.

5. A method as claimed in claim 4, wherein the second electrical length is determined by determining as a first value the sum of the electrical length of the pin electronics card and an adjustment value for the pin electronics card; determining as a second value the sum of the electrical lengths of the pin electronics card, the first output pin, and the tester interface unit; determining a third value by subtracting the first value from the second value; and adding the first value and the third value.

6. A method as claimed in claim 1, wherein the third electrical length is determined with the second output pin connected to ground by a shorting block, by determining the electrical length from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, the second output pin and the shorting block to ground.

7. A method as claimed in claim 6, wherein the third electrical length is determined by determining as a first value the sum of the electrical length of the pin electronics card and an adjustment value for the pin electronics card; determining as a second value the sum of the electrical lengths of the pin electronics card, the first output pin, the tester interface unit, the second output pin, and the shorting block; determining a third value by subtracting the first value from the fourth value; and adding the first value and the third value.

8. A method as claimed in claim 1, wherein the third difference value is evaluated by comparing the third difference value with the sum of the electrical lengths of the second output pin and the shorting block.

9. A method of determining the correctness of the calibration of an automatic test arrangement testing a device, the automatic test arrangement including a tester driver, a pin electronics card having an input connected to the tester driver and an output connected to a first output pin, and a tester interface unit having an input connected to the first output pin and an output connected to a second output pin, said method comprising with the second output pin connected to a device under test, determining a first electrical length from the tester driver to a grounding point of the device under test; with no connection to the second output pin, determining a second electrical length from the tester driver to the tester interface unit output; with the first output pin connected to ground by a first shorting block and the second output pin connected to ground by a

second shorting block, determining a third electrical length from the tester driver, to the ground; determining as a first difference value the difference between the first electrical length and the second electrical length; determining as a second difference value the difference between the first electrical length and the third electrical length; determining as a third difference value the difference between the first difference value and the second difference value; and evaluating the third difference value to determine the correctness of the calibration of the automatic test arrangement.

10. A method as claimed in claim 9, wherein the first electrical length is determined by determining the electrical length from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, and the second output pin to a grounding point of the device under test.

11. A method as claimed in claim 10, wherein the first electrical length is determined by applying an input signal from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, and the second output pin to the device under test; receiving a signal as a result of reflection of the input signal from the device under test; and determining the elapsed time between application of the input signal and receipt of the reflected signal.

12. A method as claimed in claim 9, wherein the second electrical length is determined by determining the electrical length from the tester driver, through the pin electronics card and the first output pin to the tester interface unit.

13. A method as claimed in claim 12, wherein the second electrical length is determined by determining as a first value the sum of the electrical length of the pin electronics card and an adjustment value for the pin electronics card; determining as a second value the sum of the electrical lengths of the pin electronics card, the first output pin, and the tester interface unit; determining a third value by subtracting the first value from the second value; and adding the first value and the third value.

14. A method as claimed in claim 9, wherein the third electrical length is determined with the second output pin connected to ground by a shorting block, by determining the electrical length from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, the second output pin and the shorting block to ground.

15. A method as claimed in claim 14, wherein the third electrical length is determined by determining as a first value the sum of the electrical length of the pin electronics card and an adjustment value for the pin electronics card; determining as a second value the sum of the electrical lengths of the pin electronics card, the first output pin, and the first shorting block; determining as a third value the sum of the second value and an adjustment value for the second value; determining as a fourth value the sum of the electrical lengths of the pin electronics card, the first output pin, the tester interface unit, the second output pin, and the second shorting block; determining a fifth value by

subtracting the first value from the fourth value; and adding the third value and the fifth value.

16. A method as claimed in claim 9, wherein the third difference value is evaluated by comparing the third difference value with the sum of the electrical lengths of the second output pin and the shorting block.

17. An article, comprising a storage medium having instructions stored thereon, the instructions when executed determining the correctness of the calibration of an automatic test arrangement testing a device, the automatic test arrangement including a tester driver, a pin electronics card having an input connected to the tester driver and an output connected to a first output pin, and a tester interface unit having an input connected to the first output pin and an output connected to a second output pin, by with the second output pin connected to the device under test, determining a first electrical length from the tester driver to a grounding point of the device under test; with no connection to the second output pin, determining a second electrical length from the tester driver to the tester interface unit output; with the second output pin connected to ground by a shorting block, determining a third electrical length from the tester driver to the ground; determining as a first difference value the difference between the first electrical length and the second electrical length; determining as a second difference value the difference between the first electrical length and the third electrical length; determining as a third difference value the difference between the first difference value and the second difference value; and evaluating the third difference value to determine the correctness of the calibration of the automatic test arrangement.

18. An article as claimed in claim 17, wherein the instructions when executed determine the first electrical length by determining the electrical length from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, and the second output pin to a grounding point of the device under test.

19. An article as claimed in claim 18, wherein the instructions when executed determine the first electrical length by applying an input signal from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, and the second output pin to the device under test; receiving a signal as a result of reflection of the input signal from the device under test; and determining the elapsed time between application of the input signal and receipt of the reflected signal.

20. An article as claimed in claim 17, wherein the instructions when executed determine the second electrical length determined by determining the electrical length from the tester driver, through the pin electronics card and the first output pin to the tester interface unit.

21. An article as claimed in claim 20, wherein the instruction when executed determine the second electrical length by determining as a first value the sum of the electrical length of the pin electronics card and an adjustment value for the pin electronics card; determining as a second value the sum of the electrical lengths of the pin electronics card, the first output pin, and the tester interface unit; determining a third value by

subtracting the first value from the second value; and adding the first value and the third value.

22. An article as claimed in claim 17, wherein the instructions when executed determine the third electrical length with the second output pin connected to ground by a shorting block, by determining the electrical length from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, the second output pin and the shorting block to ground.

23. An article as claimed in claim 22, wherein the instructions when executed determine the third electrical length by determining as a first value the sum of the electrical length of the pin electronics card and an adjustment value for the pin electronics card; determining as a second value the sum of the electrical lengths of the pin electronics card, the first output pin, the tester interface unit, the second output pin, and the shorting block; determining a third value by subtracting the first value from the fourth value; and adding the first value and the third value.

24. An article as claimed in claim 17, wherein the instructions when executed evaluate the third difference value by comparing the third difference value with the sum of the electrical lengths of the second output pin and the shorting block.

25. An article, comprising a storage medium having instructions stored thereon, the instructions when executed of determining the correctness of the calibration of an

automatic test arrangement testing a device, the automatic test arrangement including a tester driver, a pin electronics card having an input connected to the tester driver and an output connected to a first output pin, and a tester interface unit having an input connected to the first output pin and an output connected to a second output pin, by with the second output pin connected to a device under test, determining a first electrical length from the tester driver to a grounding point of the device under test; with no connection to the second output pin, determining a second electrical length from the tester driver to the tester interface unit output; with the first output pin connected to ground by a first shorting block and the second output pin connected to ground by a second shorting block, determining a third electrical length from the tester driver, to the ground; determining as a first difference value the difference between the first electrical length and the second electrical length; determining as a second difference value the difference between the first electrical length and the third electrical length; determining as a third difference value the difference between the first difference value and the second difference value; and evaluating the third difference value to determine the correctness of the calibration of the automatic test arrangement.

26. An article as claimed in claim 25, wherein the instructions when executed determine the first electrical length by determining the electrical length from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, and the second output pin to a grounding point of the device under test.

27. An article as claimed in claim 26, wherein the instructions when executed determine the first electrical length by applying an input signal from the tester driver, through the pin electronics card, the first output pin, the tester interface unit, and the second output pin to the device under test; receiving a signal as a result of reflection of the input signal from the device under test; and determining the elapsed time between application of the input signal and receipt of the reflected signal.

28. An article as claimed in claim 25, wherein the instructions when executed determine the second electrical length by determining the electrical length from the tester driver, through the pin electronics card and the first output pin to the tester interface unit.

29. An article as claimed in claim 28, wherein the instructions when executed determine the second electrical length by determining as a first value the sum of the electrical length of the pin electronics card and an adjustment value for the pin electronics card; determining as a second value the sum of the electrical lengths of the pin electronics card, the first output pin, and the tester interface unit; determining a third value by subtracting the first value from the second value; and adding the first value and the third value.

30. An article as claimed in claim 25, wherein the instructions when executed determine the third electrical length with the second output pin connected to ground by a shorting block, by determining the electrical length from the tester driver, through the pin

electronics card, the first output pin, the tester interface unit, the second output pin and the shorting block to ground.

31. An article as claimed in claim 30, wherein the instructions when executed determine the third electrical length by determining as a first value the sum of the electrical length of the pin electronics card and an adjustment value for the pin electronics card; determining as a second value the sum of the electrical lengths of the pin electronics card, the first output pin, and the first shorting block; determining as a third value the sum of the second value and an adjustment value for the second value; determining as a fourth value the sum of the electrical lengths of the pin electronics card, the first output pin, the tester interface unit, the second output pin, and the second shorting block; determining a fifth value by subtracting the first value from the fourth value; and adding the third value and the fifth value.

32. An article as claimed in claim 25, wherein the instructions when executed evaluate the third difference value by comparing the third difference value with the sum of the electrical lengths of the second output pin and the shorting block.

33. Apparatus comprising:

an automatic test arrangement including a tester driver, a pin electronics card having an input connected to the tester driver and an output connected to a first output pin, and a tester interface unit having an input connected to the first output pin and an output connected to a second output pin;

a device to be tested;

a shorting block;

means for determining, with the second output pin connected to the device under test, a first electrical length from the tester driver to a grounding point of the device under test;

means for determining, with no connection to the second output pin, a second electrical length from the tester driver to the tester interface unit output;

means for determining, with the second output pin connected to ground by the shorting block, a third electrical length from the tester driver to the ground;

means for determining as a first difference value the difference between the first electrical length and the second electrical length;

means for determining as a second difference value the difference between the first electrical length and the third electrical length;

means for determining as a third difference value the difference between the first difference value and the second difference value; and

means for evaluating the third difference value to determine the correctness of the calibration of the automatic test arrangement.

34. Apparatus as claimed in claim 33, comprising an automatic processing system.

35. Apparatus comprising:

an automatic test arrangement including a tester driver, a pin electronics card having an input connected to the tester driver and an output connected to a first output pin, and a tester interface unit having an input connected to the first output pin and an output connected to a second output pin;

a device to be tested;

a first shorting block;

a second shorting block;

means for determining, with the second output pin connected to the device under test, a first electrical length from the tester driver to a grounding point of the device under test;

means for determining, with no connection to the second output pin, a second electrical length from the tester driver to the tester interface unit output;

means for determining, with the first output pin connected to ground by the first shorting block and the second output pin connected to ground by the second shorting block, a third electrical length from the tester driver to the ground;

means for determining as a first difference value the difference between the first electrical length and the second electrical length;

means for determining as a second difference value the difference between the first electrical length and the third electrical length;

means for determining as a third difference value the difference between the first difference value and the second difference value; and

means for evaluating the third difference value to determine the correctness of the calibration of the automatic test arrangement.

36. Apparatus as claimed in claim 35, comprising an automatic processing system.